

CLAIMS

1. An image heating apparatus comprising:
 - a rotatable ring-shaped heat-producing medium that
 - 5 produces heat through action of magnetic flux;
 - a magnetic flux generation section that is located
 - in proximity to a first peripheral surface of said
 - heat-producing medium and generates magnetic flux that
 - acts upon said heat-producing medium;
 - 10 a magnetic flux adjustment section that is located
 - rotatably in proximity to a second peripheral surface
 - of said heat-producing medium, and has a paper passage
 - area magnetic flux adjustment medium that adjusts
 - magnetic flux acting upon a paper passage area of said
 - 15 heat-producing medium, and a paper non-passage area
 - magnetic flux adjustment medium, with a different
 - rotational phase from said paper passage area magnetic
 - flux adjustment medium, that adjusts magnetic flux acting
 - upon a paper non-passage area of said heat-producing
 - 20 medium; and
 - a synchronization control section that controls
 - magnetic flux generation timing of said magnetic flux
 - generation section in synchronization with rotational
 - phases of magnetic flux adjustment units of said magnetic
 - 25 flux adjustment section.
2. The image heating apparatus according to claim 1,
- wherein rotational speed of said magnetic flux adjustment

section is different from rotational speed of said heated heat-producing medium.

3. The image heating apparatus according to claim 1,
5 wherein said magnetic flux adjustment section rotates an integral number of times while an arbitrary part of said heat-producing medium passes through an area opposite said magnetic flux generation section.

10 4. The image heating apparatus according to claim 1, wherein a direction of rotation of said magnetic flux adjustment section is the reverse of a direction of rotation of said heat-producing medium.

15 5. The image heating apparatus according to claim 1, wherein a downstream end of an area of said magnetic flux adjustment section opposite said magnetic flux generation section rotates at a speed greater than or equal to movement up to an upstream end on an opposite side while an arbitrary
20 part of said heat-producing medium passes through an area opposite said magnetic flux generation section.

6. The image heating apparatus according to claim 1, wherein said magnetic flux adjustment section has a
25 configuration in which said paper passage area magnetic flux adjustment medium and said paper non-passage area magnetic flux adjustment medium are provided on a peripheral surface of a cylindrical body.

7. The image heating apparatus according to claim 6,
wherein a plurality of said paper non-passage area
magnetic flux adjustment media are located alternately
5 in a circumferential direction of a center part and both
end parts of a surface of said opposed core.

8. The image heating apparatus according to claim 6,
wherein an upstream end of said paper non-passage area
10 magnetic flux adjustment medium is positioned in a center
part of said opposed core and downstream ends of said
paper non-passage area magnetic flux adjustment medium
are positioned at both ends of said opposed core.

15 9. The image heating apparatus according to claim 8,
wherein a plurality of said paper non-passage area
magnetic flux adjustment media are located alternately
in a circumferential direction of a surface of said opposed
core.

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10. An image heating apparatus comprising:

a rotatable ring-shaped heat-producing medium that
produces heat through action of magnetic flux;

a magnetic flux generation section that is located
25 in proximity to a first peripheral surface of said
heat-producing medium and generates magnetic flux that
acts upon said heat-producing medium;

a temperature control section that controls said

magnetic flux generation section and maintains a temperature of a surface of said heating medium in contact with a heated medium at a predetermined temperature; and a calorific value distribution adjustment section that selectively adjusts magnetic flux acting upon a predetermined area of said heat-producing medium and uniformizes calorific value distribution of said heat-producing medium.

11. The image heating apparatus according to claim 10, wherein said calorific value distribution adjustment section has a magnetic body opposite said magnetic flux generation section.

12. The image heating apparatus according to claim 10, wherein said calorific value distribution adjustment section has an electrical conductor opposite said magnetic flux generation section.

13. The image heating apparatus according to claim 6, wherein said calorific value distribution adjustment section is equipped with a suppression coil composed of an electrical conductor that is linked to magnetic flux generated by said magnetic flux generation section.

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14. An image forming apparatus comprising:
the image heating apparatus according to claim 1;
a first temperature sensor that detects a

temperature of a paper passage area of said heat-producing medium and sends a heat-producing medium paper passage area detected temperature signal to said temperature control section; and

5 a second temperature sensor that detects a temperature of a paper non-passage area of said heat-producing medium and sends a heat-producing medium paper non-passage area detected temperature signal to said temperature control section;

10 wherein said synchronization control section controls magnetic flux generation timing of said magnetic flux generation section in synchronization with respective rotational phases of magnetic flux adjustment units of said magnetic flux adjustment section based on
15 a detected temperature signal from said second temperature sensor.

15. An image forming apparatus comprising:

 the image heating apparatus according to claim 10;

20 a first temperature sensor that detects a temperature of a paper passage area of said heat-producing medium and sends a heat-producing medium paper passage area detected temperature signal to said temperature control section; and

25 a second temperature sensor that detects a temperature of a paper non-passage area of said heat-producing medium and sends a heat-producing medium paper non-passage area detected temperature signal to

said temperature control section;

wherein said calorific value distribution adjustment section selectively adjusts magnetic flux acting upon a predetermined area of said heat-producing medium and uniformizes calorific value distribution of
5 said heat-producing medium based on a detected temperature signal from said second temperature sensor.

16. An image forming apparatus comprising:

10 the image heating apparatus according to claim 10;
a pressure member that rotates and applies pressure to said heat-producing medium;

a first pressure temperature sensor that detects a temperature of a paper passage area of said pressure
15 member and sends a pressure member paper passage area detected temperature signal to said temperature control section; and

a second pressure temperature sensor that detects the temperature of a paper non-passage area of said
20 pressure member and sends a pressure member paper non-passage area detected temperature signal to said temperature control section;

wherein said calorific value distribution adjustment section selectively adjusts magnetic flux
25 acting upon a predetermined area of said heat-producing medium and uniformizes calorific value distribution of said heat-producing medium based on a detected temperature signal from said second pressure temperature

sensor.